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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/434,314	11/04/1999	PETER J. BLACK	PA000045	3810

23696 7590 08/28/2002

Qualcomm Incorporated
Patents Department
5775 Morehouse Drive
San Diego, CA 92121-1714

EXAMINER

LEE, JOHN J

ART UNIT	PAPER NUMBER
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2682

DATE MAILED: 08/28/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/434,314

Applicant(s)

BLACK, PETER J.

Examiner

JOHN J LEE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 June 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. Applicant's arguments with respect to claims 1 - 18 have been considered but are moot in view of the new ground(s) of rejection.

Specification

2. The amendment filed on 05/28/2002 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: "the busy tones, as described below, can be used to determine the quality of the reverse link" in Applicant Amendment pages 24, lines 26-27.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1, 2, 13**, are rejected under 35 U.S.C. 102(b) as being anticipated by Padovani et al. (US Patent number 5,722,044).

Regarding **claim 1**, Padovani discloses that in a wireless communication system, a method for performing handoff comprising:

at a first station (30 in Fig. 1), determining when a handoff is necessary (column 2, lines 5 – column 3, lines 61);

receiving an indication of a link quality of signals transmitted by said first station (column 6, lines 4 – column 7, lines 56); and

selectively performing said handoff in accordance with said indication of the link quality (abstract and column 10, lines 6 – column 11, lines 56).

Regarding **claim 2**, Padovani discloses that the indication of the link quality comprises power control commands for controlling the transmission energy of said first station (column 6, lines 30 – column 7, lines 67).

Regarding **claim 13**, Padovani discloses that the indication of the link quality comprises a rate request message (column 5, lines 34 – column 6, lines 65 and column 3, lines 44 – column 4, lines 23).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 3 – 12 and 14 – 36** are rejected under 35 U.S.C. 103(a) as being unpatentable over Padovani in view of Soliman (US Patent number 6,055,428).

Regarding **claim 3**, Padovani discloses that the first station is a subscriber station and selectively performing said handoff comprises:

determining in accordance with said indication of the link quality whether signals transmitted by said subscriber station are being received by said selected base station with sufficient energy (abstract and column 10, lines 6 – column 11, lines 56); and

performing said handoff to said selected base station when signals transmitted by said subscriber station are being received by said selected base station with sufficient energy (column 6, lines 4 – column 7, lines 56, abstract, and column 10, lines 6 – column 11, lines 56).

Padovani does not specifically disclose the limitation “the step of selectively performing said handoff comprises selecting a base station to transmit to said subscriber station”. However, Soliman discloses “the step of selectively performing said handoff comprises selecting a base station to transmit to said subscriber station” (column 3, lines 5 – column 4, lines 10). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Padovani system as taught by Soliman. Doing so would enhance method and system for performing handoff in wireless communication system.

Regarding **claim 4**, Padovani discloses that the performing said handoff comprises transmitting a message indicating the identity of said selected base station (column 6, lines 4 – column 7, lines 67).

Regarding **claim 5**, Padovani discloses that the message further indicates a requested rate of transmission by said selected base station (column 5, lines 34 – column 6, lines 65 and column 3, lines 44 – column 4, lines 23).

Regarding **claim 6**, Padovani discloses that the step of transmitting said message comprises spreading a message indicative of a requested rate by a signal indicative of said selected base station (column 5, lines 34 – column 6, lines 65 and column 3, lines 44 – column 4, lines 23).

Regarding **claim 7**, Padovani and Soliman disclose all the limitation as discussed in claims 1 and 3. Furthermore, Padovani further discloses that determining that a base station used communicate with said subscriber station continues to have the strongest signal received by said subscriber station (column 6, lines 4 – column 7, lines 56, abstract, and column 10, lines 6 – column 11, lines 56);

Regarding **claim 8**, Padovani and Soliman disclose all the limitation as discussed in claims 1 and 2.

Regarding **claim 9**, Padovani and Soliman disclose all the limitation as discussed in claims 1 and 2.

Regarding **claim 10**, Padovani and Soliman disclose all the limitation as discussed in claims 1 and 2.

Regarding **claim 11**, Padovani and Soliman disclose all the limitation as discussed in claims 1 and 2.

Regarding **claim 12**, Padovani and Soliman disclose all the limitation as discussed in claims 1 and 2.

Regarding **claim 14**, Padovani and Soliman disclose all the limitation as discussed in claims 1 and 5.

Regarding **claim 15**, Padovani and Soliman disclose all the limitation as discussed in claims 1 and 5.

Regarding **claim 16**, Padovani and Soliman disclose all the limitation as discussed in claims 1 and 5.

Regarding **claim 17**, Padovani and Soliman disclose all the limitation as discussed in claims 1 and 5.

Regarding **claim 18**, Padovani and Soliman disclose all the limitation as discussed in claims 1 and 5.

Regarding **claim 19**, Padovani and Soliman disclose all the limitation as discussed in claims 1 and 3. Furthermore, Padovani further discloses that configured to permit a handoff to a selected base station of the one or more base stations according to the indication of the quality of the received reverse link signal (column 6, lines 4 – column 7, lines 56, abstract, and column 10, lines 6 – column 11, lines 56).

Padovani does not specifically disclose the limitation “a memory configured to store an indication of the quality of a received reverse link signal provided by one or more base stations and a processor coupled with the memory”. However, Soliman discloses “a memory configured to store an indication of the quality of a received reverse link signal provided by one or more base stations and a processor coupled with the memory” (Fig. 3 and column 5, lines 3 – column 6, lines 22). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify

Padovani system as taught by Soliman. Doing so would enhance mobile devices for performing handoff in wireless communication system.

Regarding **claim 20**, Padovani and Soliman disclose all the limitation as discussed in claims 1 and 19. Furthermore, Padovani further discloses that an energy calculator configured to calculate the energy of a pilot signal from each of the one or more base stations (column 8, lines 8 – column 9, lines 62).

Regarding **claim 21**, Padovani discloses that the processor is configured to select a rate of transmission for the selected base station according to the calculated energy of the pilot signals (column 8, lines 8 – column 9, lines 62 and column 5, lines 34 – column 6, lines 65).

Regarding **claim 22**, Padovani and Soliman disclose all the limitation as discussed in claims 5 and 19.

Regarding **claim 23**, Padovani discloses that the indication of the quality of the received reverse link signal comprises power control commands from each of the one or more base stations (column 6, lines 30 – column 7, lines 67).

Regarding **claim 24**, Padovani discloses that the power control commands requesting the subscriber station to decrease its transmission energy are indicative that the reverse link signal is being received (column 6, lines 30 – column 7, lines 67 and column 10, lines 6 – column 11, lines 56).

Regarding **claim 25**, Padovani discloses that the power control commands requesting the subscriber station to increase its transmission energy are indicative of

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energy that the reverse link signal is not being received (column 6, lines 30 – column 7, lines 67 and column 10, lines 6 – column 11, lines 56).

Regarding **claim 26**, Padovani and Soliman disclose all the limitation as discussed in claims 19 and 22.

Regarding **claim 27**, Padovani discloses that the indication of the quality of the received reverse link signal comprises a message, from each of the one or more base stations, indicating the average quality of the received reverse link signal (column 6, lines 30 – column 7, lines 67 and column 10, lines 6 – column 11, lines 56).

Regarding **claim 28**, Padovani and Soliman disclose all the limitation as discussed in claims 1 and 19.

Regarding **claim 29**, Padovani and Soliman disclose all the limitation as discussed in claims 19 and 28.

Regarding **claim 30**, Padovani and Soliman disclose all the limitation as discussed in claims 21 and 28.

Regarding **claim 31**, Padovani and Soliman disclose all the limitation as discussed in claims 22 and 28.

Regarding **claim 32**, Padovani and Soliman disclose all the limitation as discussed in claims 2 and 23.

Regarding **claim 33**, Padovani and Soliman disclose all the limitation as discussed in claims 24 and 28.

Regarding **claim 34**, Padovani and Soliman disclose all the limitation as discussed in claims 25 and 28.

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Regarding **claim 35**, Padovani and Soliman disclose all the limitation as discussed in claims 26 and 28.

Regarding **claim 36**, Padovani and Soliman disclose all the limitation as discussed in claims 27 and 28.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gilhousen et al. (US Patent number 6,157,668) discloses Reducing the Average Transmit Power of a Base Station.

Jung (US Patent number 6,154,653) discloses Soft Swap Handoff Method in a CDMA Cellular System.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 308-6606 (for informal or draft communications, please label
"PROPOSED" or "DRAFT").

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John J. Lee** whose telephone number is **(703) 306-5936**.

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He can normally be reached Monday-Thursday and alternate Fridays from 8:30am-5:00 pm. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, **Vivian Chin**, can be reached on **(703) 308-6739**. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4700.

J.L
August 23, 2002

John J Lee


VIVIAN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

8/26/02